

A New Species of *Leptohyphes* from Mexico¹

(Ephemeroptera: Tricorythidae)

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An undescribed species of *Leptohyphes* Eaton, 1882, was recently found in a collection of mayfly nymphs from Mexico. I take pleasure in naming this species in honor of Richard K. Allen, in recognition of his contributions to the knowledge of this genus. I thank Jerry Battagliotti for preparing the illustrations.

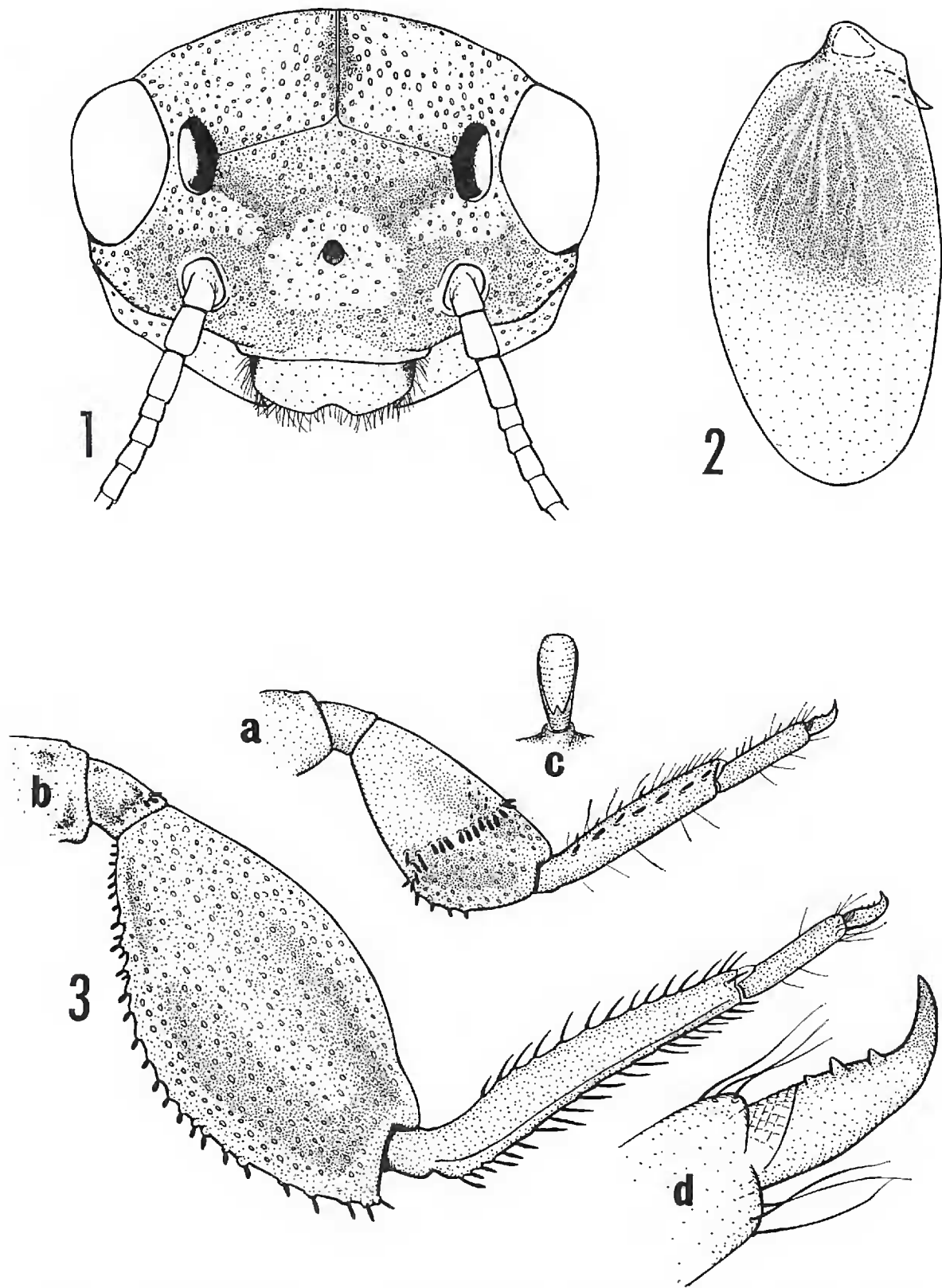
Leptohyphes alleni Brusca, new species

NYMPH.—Length: body 4.0–5.0 mm; caudal filaments 4.5–5.5 mm. General color tan to reddish-brown with gray to black markings. Head tan with scattered black markings and numerous pale spots (Fig. 1); maxillary palpi 3-segmented; labrum pale with black lateral margins and marginal setae; labrum deeply emarginate; lateral ocelli moderate in size, median ocellus small. Thoracic nota brown with variable gray markings and numerous pale spots; legs reddish-brown with numerous pale spots on femora (Fig. 3a, b); femora with large, diffuse, black maculae; tibiae reddish-brown with faint black streak along ventral margin; tarsi pale, without markings; femora with short spines (Fig. 3c); fore femoral band of spines (Fig. 3a); hind femora with marginal spines in raised sockets; hind femora without spines on anterior surface; hind femora produced apically, and 50 per cent longer than fore femora (Fig. 3b); tibiae with large marginal spines; tarsal claws with 3–4 marginal denticles (Fig. 3d); tarsal claws red apically. Abdominal terga reddish-brown with numerous pale spots and diffuse, black, transverse band; terga 1–9 with long posterolateral spines; sterna reddish-brown with diffuse black markings; operculate gills pale at apex and along margin, dark at base; operculate gill with short lateral spine near base (Fig. 2). Caudal filaments brown with pale annulations.

Holotype mature nymph, STREAM 10 MILES NORTH HUAJUAPAN DE LEON, OAXACA, MEXICO, 7 September 1968. R. K. Allen, in collection California Academy of Sciences, San Francisco. Paratopotypes: 3 mature nymphs, same data as holotype, in collection California State College at Los Angeles.

REMARKS.—Mature nymphs were collected in a small stream (elevation 5,400 ft.) with a temperature of 70° F. *Leptohyphes alleni* and *Leptohyphes murdocki* Allen are the only described species of *Leptohyphes* in which the head, body, and femora are covered with small, white spots. The femoral spines of both species are short and broad,

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FIGS. 1-3. *Leptohyphes alleni* Brusca, n. sp., nymph: FIG. 1. head, front view; FIG. 2. operculate gill; FIG. 3a. right fore leg; FIG. 3b. right hind leg; FIG. 3c. fore femoral spine; FIG. 3d. tarsal claw.

and the number of denticles on the tarsal claws is indential. *Leptohyphes alleni* appears to be geographically and seasonally isolated from *L. murdocki* as the former has been collected in November from southern Mexico, and the latter in May from Panama. *Leptohyphes alleni*

is distinguished from all described *Leptohyphes*, by the following combination of characters: (1) the maxillary palpi are 3-segmented; (2) the femora are reddish-brown with black maculae; (3) the hind femora are expanded, with an apical projection; (4) the ratio of length of fore femora to hind femora is 50 per cent; (5) the middle and hind tibiae have long spines on the dorsal and ventral margins; and (6) the hind femora are without spines on the anterior surface. *Leptohyphes alleni* is the first species of the genus to be described from southern Mexico.

SCIENTIFIC NOTE

On the identity of *Panurginus ineptus* Cockerell (Hymenoptera: Andrenidae).—The type of *P. ineptus* recently passed through my hands and I identified it as a true *Panurginus* although it was transferred to *Pseudopanurgus* in the Synoptic Catalog (U. S. Dep. Agr. Monogr., 2: 1,100). The first recurrent nervure in this species, as I now recognize it, is received almost interstitially with the first intercubitus, or from about one to three widths of the nervure beyond the intercubitus, so that in some cases it is received about as far from base as the second recurrent nervure is from the apex of the second submarginal cell.

Synonymy: *Panurginus ineptus* Cockerell, 1922, Amer. Mus. Novitates, 36: 8, 10, ♀.

Panurginus bakeri Crawford, 1926, Proc. Entomol. Soc. Wash., 28: 213, ♂ (new synonymy).

The material recorded below seems to be correctly identified with *P. ineptus*, although the wing nervures run more or less darker than in the type. The males agree closely with Crawford's description of *P. bakeri* and with his figures.

Colorado: 1 female, type of *ineptus*, Tennessee Pass, 10,500 feet, 6–8 August 1920 (Lutz); 1 female, Elk Springs, Moffat Co., on *Stanleya pinnata*, 23 June 1950 (C. D. Michener); 1 female, Gothic, 9,500 feet, Gunnison Co., 14 August 1964 (Michener and Downhower); 1 male, Slumgullion Pass, 29 June 1937 (R. H. Beamer). Utah: 1 male, Logan Canyon, 25 May 1954 (Knowlton and Bohart); 1 female, 20 miles east of Salt Lake City, 11 June 1952 (W. E. LaBerge); 9 males, Wellsville, Cache Co., 13 May 1954 (G. E. Bohart); 1 male, Wellsville, 3 June 1937 (F. C. Harmston); 1 male, Mill Creek Canyon, Salt Lake Co., 8 June 1955 (J. C. Downey); 1 female, Navajo Lake, 9,800 feet, 8 July 1964 (G. F. Knowlton). Washington: 1 male, Van Trump, Mt. Ranier, 21 July 1922 (A. L. Melander). Oregon: 1 female, Aneroid Lake, Wallowa Co., 1 August 1941 (R. F. Rieder).—P. H. TIMBERLAKE, *University of California, Riverside 92502*.